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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,012	11/17/2003	Natsuki Yokoyama		9741

24956 7590 09/20/2004

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EXAMINER	
GARLAND, STEVEN R	

ART UNIT	PAPER NUMBER
2125	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/713,012	YOKOYAMA ET AL.	
	Examiner	Art Unit	
	Steven R Garland	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *164* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *164* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 08/274,308.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/17/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The abstract of the disclosure is objected to because it should be directed to the claimed invention. Correction is required. See MPEP § 608.01(b).

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 164 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 164, lines 23-31, are unclear about what the time interval represents, how the time interval relates to the unit time, and what the time interval is set to.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 164 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida et al. 5,436,848 (cited by applicant).

Nishida et al. teaches processing semiconductor wafers according to a predetermined schedule in which the schedule is based on the processing time of the

longest step. See col. 2, lines 18-68. All processing and movements are based on the time of the longest step so as to achieve synchronized processing and movement of the wafers. Nishida also shows the use of a plurality of processing apparatuses each having a chamber, (figure 1 elements 41-44) transporting means in the form of a robot with moving means which serves to transport the wafer between the apparatuses (inter-apparatus transporter) and to load and unload the wafers to and from the chambers (transporting means). See the figures and col. 1, lines 38 to col. 3, line 4. Note figure 1 shows the use of chambers.

Nishida however does not specifically state that the time interval is " N multiplication of said unit time". Nishida does teach using intervals of the unit time. Col. 2, line 63 to col. 3, line 4.

It would have been obvious to one of ordinary skill in the art to modify Nishida to use a multiple of the unit time as the time interval so that the movements could be synchronized for ease in control and avoid waiting for a processing device to become available. Note is also taken that the "unit time " is not require to be the shortest processing time of any of the devices, but is readable on the longest processing time of any of the devices, in which case the multiple can be a positive number one.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nygaard 3,812,947 is of interest in the use of constant time intervals.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven R Garland whose telephone number is 703-305-

9759, after !0/13/04 at 571-272-3741. The examiner can normally be reached on Monday-Thursday from 6:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on 703-308-0538 after 10/12/04 at (571)272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SNG

STEVEN GARLAND

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

IN THE CLAIMS

Cancel claims 1-163 without prejudice or disclaimer, and add new claim 164 as follows:

164. (New) A fabricating method comprising the steps of:

processing semiconductor wafers by a plurality of processing apparatuses each including at least one processing chamber and an interface having transporting means for transporting a semiconductor wafer to be processed into said processing chamber and for sending out a processed semiconductor wafer, wherein timings of transporting the semiconductor wafers at said interfaces of said processing apparatuses are scheduled according to a predetermined scheduling, and said predetermined scheduling is made by use of a unit time which is common to all of said plurality of processing apparatuses; and

transporting semiconductor wafers from one of the processing apparatuses to another by an inter-apparatus transporter;

wherein, in each of said plurality of processing apparatuses, semiconductor wafers are set at said interface by

said inter-apparatus transporter, transported into said processing chamber by said transporting means, processed in said processing chamber, and transported out of said processing chamber by said transporting means; and

wherein time interval assigned to each of said processing apparatuses including time for transporting a semiconductor wafer to be processed into said processing chamber at said interface, time for processing the semiconductor wafer in said processing chamber, time for transporting the semiconductor wafer out of said processing chamber and sending out at said interface is set a N multiplication of said unit time, with N being a positive integer.